

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450

# NOTICE OF ALLOWANCE AND FEE(S) DUE

7590

04/05/2004

Anne Vachon Dougherty 3173 Cedar Road Yorktown Heights, NY 10598 EXAMINER

TRAN, TAN N

ART UNIT PAPER NUMBER

2826

DATE MAILED: 04/05/2004

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/091,193      | 03/05/2002  | Howard Hao Chen      | YOR91999-0420-US2   | 6354             |

TITLE OF INVENTION: SEMICONDUCTOR HIGH DIELECTRIC CONSTANT DECOUPLING CAPACITOR STRUCTURES AND PROCESS FOR FABRICATION

| APPLN. TYPE    | SMALL ENTITY | ISSUE FEE | PUBLICATION FEE | TOTAL FEE(S) DUE | DATE DUE   |
|----------------|--------------|-----------|-----------------|------------------|------------|
| nonprovisional | NO           | \$1330    | \$300           | \$1630           | 07/06/2004 |

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above and notify the United States Patent and Trademark Office of the change in status, or

If the SMALL ENTITY is shown as NO:

- A. Pay TOTAL FEE(S) DUE shown above, or
- B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check the box below and enclose the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.
- Applicant claims SMALL ENTITY status.
   See 37 CFR 1.27.
- II. PART B FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.
- III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

# PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail

Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (703) 746-4000

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 4 should be completed where

| appropriate. All further con<br>indicated unless corrected be<br>maintenance fee notification   | respondence including the<br>below or directed otherwise<br>is.   | Patent, advance orders an in Block 1, by (a) specif   | d notification<br>lying a new o   | of maintenance fees<br>correspondence addres   | will be mailed to the current<br>ss; and/or (b) indicating a sep               | correspondence address as<br>arate "FEE ADDRESS" for |
|---|---|---|---|--|--|--|
| CURRENT CORRESPONDENCE ADDRESS (Note: Legibly mark-up with any corrections or use Block I)  7590 04/05/2004  Anne Vachon Dougherty 3173 Cedar Road Yorktown Heights, NY 10598   |   |   |   | Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must   |  |  |
|   |   |   |   | have its own certificate of mailing or transmission.  Certificate of Mailing or Transmission  I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO, on the date indicated below. |  |  |
|   |   |   |   |  | 77 70, on the date indicated be  | (Depositor's name)                                   |
|   |   |   |   |  |  | (Signature)  |
|   |   |   |   |  |  | (Date)   |
| APPLICATION NO.   | FILING DATE   | FIRST N   | AMED INVE   | NTOR   | ATTORNEY DOCKET NO.  | CONFIRMATION NO.                                     |
| 10/091,193  | 03/05/2002  | Hov   | ward Hao Che  | en .   | YOR91999-0420-US2  | 6354   |
| TITLE OF INVENTION: SE  | EMICONDUCTOR HIGH D   | DIELECTRIC CONSTAN  | T DECOUPL   | ING CAPACITOR ST   | ructures and process   | S FOR FABRICATION                                    |
| APPLN. TYPE   | SMALL ENTITY  | ISSUE FEE   | P   | UBLICATION FEE   | TOTAL FEE(S) DUE   | DATE DUE   |
| nonprovisional  | NO  | \$1330  |   | \$300  | \$1630   | 07/06/2004   |
| EXAM  | INER  | ART UNIT  | С   | LASS-SUBCLASS  | 7  |  |
| TRAN,   | TAN N   | 2826  |   | 257-310000   | _  |  |
| Address form PTO/SB/12  "Fee Address" indication  | nce address (or Change of C<br>2) attached.<br>on (or "Fee Address" Indicat<br>or more recent) attached. Use  | Correspondence nam agen firm agen agen e of a Customer will   | es of up to<br>its OR, alterr<br>(having as a<br>t) and the na<br>neys or agen<br>be printed.   | the patent front page 3 registered patent natively, (2) the name 1 member a registered ames of up to 2 regists. If no name is list   | attorneys or 1e of a single diattorney or 2stered patent                       |  |
| PLEASE NOTE: Unless   | an assignee is identified beld to the USPTO or is being s   | ow, no assignee data will<br>submitted under separate c   | appear on th<br>over. Comple  | e natent Inclusion of  | assignee data is only appropri<br>OT a substitute for filing an ass<br>OUNTRY) | ate when an assignment has ignment.                  |
| Please check the appropriate  | assignee category or catego   | ries (will not be printed on  | the patent);  | individual 🗅   | corporation or other private g   | roup entity 🚨 government                             |
| 4a. The following fee(s) are 6  | enclosed:   | •   | ent of Fee(s):  |  |  |  |
| ☐ Issue Fee ☐ Publication Fee   |   |   |   | nount of the fee(s) is en  |  |  |
| ☐ Advance Order - # of Copies   |   | The   | ☐ Payment by credit card. Form PTO-2038 is attached. ☐ The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to |  |  |  |
| Director for Patents is reques  | sted to apply the Issue Fee a   | Deposi  | Account Nu  | imber  | issue fee to the application ide   | copy of this form).                                  |
| (Authorized Signature)  | <del>- ,                                   </del>   | (Date)  | <del></del>   |  |  | 211  |
| interest as shown by the rec  | Publication Fee (if require registered attorney or agreed of the United States Pa   | ent; or the assignee or of<br>stent and Trademark Office  | ther party in   |  |  |  |
| This collection of informat obtain or retain a benefit the application. Confidentiality estimated to take 12 minute completed application form case. Any comments on suggestions for reducing the Patent and Trademark C 22313-1450. DO NOT SI SEND TO: Commissioner to Under the Paperwork Rec | tion is required by 37 CFR by the public which is to find it is governed by 35 U.S.C. is governed by 35 U.S.C. is governed by 35 U.S.C. is to complete, including gent to the USPTO. Time will the amount of time you in its burden, should be sent to office, U.S. Department END FEES OR COMPLE for Patents, Alexandria, Victor Patents of 1995, no publics it displays a valid OMI | 1.311. The information is le (and by the USPTO to 22 and 37 CFR 1.14. This athering, preparing, and start dequire to complete this to the Chief Information to Commerce, Alexandr TED FORMS TO THIS ginia 22313-1450. | s required to<br>process) an<br>collection is<br>benefiting the<br>individual<br>form and/or<br>Officer, U.S.<br>ia, Virginia<br>ADDRESS.             |  |  |  |



# United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspio.gov

| APPLICATION NO. | FILING DATE                                   | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.    | CONFIRMATION NO. |
|-----------------|---|----------------------|------------------------|------------------|
| 10/091,193      | 03/05/2002                                    | Howard Hao Chen      | YOR91999-0420-US2      | 6354             |
| 75              | 04/05/2004                                    |                      | EXAM                   | INER             |
| Anne Vachon Do  | ugherty                                       |                      | TRAN,                  | TAN N            |
|                 | 3173 Cedar Road<br>Yorktown Heights, NY 10598 |                      | ART UNIT               | PAPER NUMBER     |
| <b>3</b> ,      |   |                      | 2826                   |                  |
|                 |   |                      | DATE MAILED: 04/05/200 | 4                |

### Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) system (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (703) 305-1383. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

| · [/   | Application No.  | Applicant(s)  |
|--|--|---|
|  | 10/091,193   | CHEN ET AL.   |
| Nation of Allowability   | Examiner   | Art Unit  |
| -  | TAN N TRAN   | 2826  |
| The MAILING DATE of this communication appear. All claims being allowable, PROSECUTION ON THE MERITS IS (Concrewith (or previously mailed), a Notice of Allowance (PTOL-85) or NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHT of the Office or upon petition by the applicant. See 37 CFR 1.313 a   | OR REMAINS) CLOSED i<br>or other appropriate comm<br>itensian is item is item is item. This application is | n this application. If not included unication will be mailed in due course. <b>THIS</b>                                     |
| . $\boxtimes$ This communication is responsive to <u>amendment filed on 02</u>   | <u>//17/04</u> .   |   |
| 2. ☑ The allowed claim(s) is/are <u>1-14</u> .   |  |   |
| 3. X The drawings filed on 05 March 2002 and 14 May 2003 are a   | accepted by the Examine  | т.  |
| <ol> <li>Acknowledgment is made of a claim for foreign priority unden</li> <li>a) All b) Some* c) None of the:</li> <li>1. Certified copies of the priority documents have been copies of the priority documents have been copies of the certified copies of the priority documents have been copies of the certified copies of the priority documents have been copies of the certified copies of the priority documents have been copies of the priority documents have been copies of the certified copies of the certified copies of the priority documents have been copies of the certified copies of the priority documents have been copies of the certified copies of the certified copies of the priority documents have been copies.</li> </ol> | peen received.<br>Deen received in Application   | on No   |
| Applicant has THREE MONTHS FROM THE "MAILING DATE" of noted below. Failure to timely comply will result in ABANDONME THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.  |  | e a reply complying with the requirements   |
| <ol> <li>A SUBSTITUTE OATH OR DECLARATION must be submitt<br/>INFORMAL PATENT APPLICATION (PTO-152) which gives</li> </ol>   |  |   |
| 6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must (a) ☐ including changes required by the Notice of Draftspersor  1) ☐ hereto or 2) ☐ to Paper No./Mail Date  (b) ☐ including changes required by the attached Examiner's A Paper No./Mail Date  | n's Patent Drawing Revie   |   |
| Identifying indicia such as the application number (see 37 CFR 1.84 each sheet. Replacement sheet(s) should be labeled as such in the  |  |   |
| 7. ☐ DEPOSIT OF and/or INFORMATION about the deposit attached Examiner's comment regarding REQUIREMENT F   | t of BIOLOGICAL MAT  | ERIAL must be submitted. Note the   |
| Attachment(s)  1. Notice of References Cited (PTO-892)  2. Notice of Draftperson's Patent Drawing Review (PTO-948)  3. Information Disclosure Statements (PTO-1449 or PTO/SB/08) Paper No./Mail Date  4. Examiner's Comment Regarding Requirement for Deposit  | 6. ☐ Interview S<br>Paper No.<br>7. ☒ Examiner's<br>8. ☒ Examiner's  | nformal Patent Application (PTO-152) Summary (PTO-413), /Mail Date s Amendment/Comment s Statement of Reasons for Allowance |
| of Biological Material   | 9.   | Minhloan Tran Primary Examiner Art Unit 2826  |

U.S. Patent and Trademark Office PTOL-37 (Rev. 1-04)

# **DETAILED ACTION**

### **EXAMINER'S AMENDMENT**

1. Cancel the non-elected claims 15-20. (elected without traverse)

### Reasons for Allowance

2. The following is an examiner's statement of reasons for allowance:

Claims 1-14 are allowable over the reference of record because none of these references disclose or can be combined to yield the claimed invention such as the first high dielectric constant material being a different material from and having a higher dielectric constant than the at-least one dielectric as recited in claim 1.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled ""Comments on Statement of Reasons for Allowance."

3. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Tan Tran whose telephone number is (571) 272-1923. The examiner can normally be reached on M-F 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (571) 272-1915. The fax phone numbers for the Application/Control Number: 10/091,193

Art Unit: 2826

organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for after final communications.

Page 3

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

TT

Mar 2004